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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/802,882	03/18/2004	Shinji Iino	250227US	5195
22850	7590	09/29/2005		
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER PATEL, PARESH H	
			ART UNIT 2829	PAPER NUMBER

DATE MAILED: 09/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/802,882	Applicant(s) IINO ET AL. <span style="float: right;">(Signature)</span>	
	Examiner Paresh Patel	Art Unit 2829	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 8-15 is/are pending in the application.
- 4a) Of the above claim(s) 8-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☒ Certified copies of the priority documents have been received in Application No. 09/931888.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments filed 08/19/2005 have been fully considered but they are not persuasive. Applicant argues that claimed reference value of current is from 500mA to 1 A is not taught by Okubo. Examiner disagrees because added claim limitation (reference value of current is from 500mA to 1 A) relies on the resistance (see fig. 14), voltage and current control, which is/are not found in the claim. Therefore, Examiner believes that Okubo discloses and suggests the reference value of current is from 500mA to 1 A as claimed, see the rejection below.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okubo (US 6529011).

Regarding claim 1, Okubo **[in fig. 1 and at lines 19-39 of column 4]** discloses:  
a method for inspecting a target object to be inspected, comprising the step of:

a bringing about a fringing phenomenon **[using 8]** using at least probe in a part of  
an insulating film formed on an inspection electrode **[2 or 3]** of the target object **[1]** to be

Art Unit: 2829

inspected so as to break a part of the insulating film **[lines 64-67 of column 3 and 1-4 of column 4]**;

stopping a voltage **[using 6 or 7]** from being applied across the at least one probe and the inspection electrode when a current flowing between the at least one probe and the inspection electrode reaches a reference value **[lines 64-67 of column 3 and 1-4 of column 4]**.

bringing the at least one probe **[4 or 5]**, used to bring about fritting phenomenon, into electrical contact with the surface of a part of the inspection electrode, the insulating film of the part of the inspection electrode having been broken by fritting phenomenon; and

inspecting the electrical characteristic **[using 9]** of the target object using a tester connected to the at least one probe **[lines 5-16 of column 4]**.

Okubo discloses all the elements as mentioned above but is silent about a **reference value of 500mA-1A**. However, Okubo at lines 35-44 of column 2 discloses, "the level of the electrical signal capable of breaking the insulation depends on the composition and thickness of the insulation layer, but, generally speaking, the application of voltage within a range of 20-10000 V/ $\mu$ m is sufficient to cause insulation breakdown." Therefore, Okubo discloses claimed range of current (by ohm's law), since application of voltage as disclosed by Okubo includes application of current.

Regarding claim 2, Okubo discloses: breaking a part of the insulating film comprises the step of:

bringing the at least one probe **[4]** into contact with the inspection electrode **[2]**;  
and

applying a voltage **[using 8]** between the at least one probe and the inspection electrode so as to bring about the fritting phenomenon **[lines 64-67 of column 3 and 1-4 of column 4]**.

4. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okubo (US 6529011).

Regarding claim 1, Okubo **[in fig. 3 and at lines 12-48 of column 5]** discloses:  
a method for inspecting a target object to be inspected, comprising the step of:

a bringing about a fritting phenomenon **[using 8a or 8b]** using at least probe **[(4a or 4b) or (5a or 5b)]** in a part of an insulating film **[oxide or insulation]** formed on an inspection electrode **[2 or 3]** of the target object **[1]** to be inspected so as to break a part of the insulating film **[lines 22-30 of column 5]**;

stopping a voltage **[using 6 or 7]** from being applied across the at least one probe and the inspection electrode when a current flowing between the at least one probe and the inspection electrode reaches a reference value **[1-4 of column 4]**;

bringing the at least one probe **[(4a or 4b) or (5a or 5b)]**, used to bring about fritting phenomenon, into electrical contact with the surface of a part of the inspection electrode, the insulating film of the part of the inspection electrode having been broken by fritting phenomenon; and

inspecting the electrical characteristic **[using 9]** of the target object using a tester connected to the at least one probe **[lines 44-47 of column 5]**.

Okubo discloses all the elements as mentioned above but is silent about a **reference value of 500mA-1A**. However, Okubo at lines 35-44 of column 2 discloses, "the level of the electrical signal capable of breaking the insulation depends on the composition and thickness of the insulation layer, but, generally speaking, the application of voltage within a range of 20-10000 V/ $\mu$ m is sufficient to cause insulation breakdown." Therefore, Okubo discloses claimed range of current (due to ohm's law), since application of voltage as disclosed by Okubo includes application of current.

Regarding claim 2, Okubo discloses: breaking a part of the insulating film comprises the step of:

bringing the at least one probe **[4a]** into contact with the inspection electrode **[2]**;  
and

applying a voltage **[using 8a]** between the at least one probe and the inspection electrode so as to bring about the fritting phenomenon **[lines 22-30 of column 5]**;

Regarding claims 3-4, Okubo discloses: breaking a part of the insulating film comprises the step of:

bringing the at least one probe **[4a]** and a second probe **[4b]** into contact with the inspection electrode; and


applying a voltage **[using 8a]** between the at least one probe and the inspection electrode so as to bring about the fritting phenomenon **[lines 22-30 of column 5]**;

inspecting the electrical characteristic **[using 9]** of the target object to be


inspected by utilizing the at least one probe [4a] while the second probe [4b] remains in contact with the surface of a part of the inspection electrode, the insulating film of the part having been broken by the fritting phenomenon which has been brought about within the insulating film.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paresh Patel whose telephone number is 571-272-1968. The examiner can normally be reached on 8:00 to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on 571-272-2034. The fax phone number for the organization where this application or proceeding is assigned is ~~703-872-9306~~ <sup>571-273-8300</sup> .

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
September 28, 2005

Paresh Patel  
Primary Examiner  
Art Unit 2829